IN THE CLAIMS:

Please amend claims set forth below.

1. (Original) A combination product comprising at least one antisense oligonucleotide of the gene encoding MBD2 demethylase and at least one agent used in antitumor chemotherapy, for simultaneous, separate or prolonged use intended for the treatment of proliferative and inflammatory diseases.

2. (Currently Amended) The combination product ~~as claimed in~~ of claim 1, ~~characterized in that~~ wherein the antisense of the gene encoding MBD2 demethylase comprises at least:

a) 15 consecutive nucleotides of the sequence SEQ ID No. 1 or of the sequence complementary thereto, or of the sequence SEQ ID No. 2, or

b) a sequence capable of hybridizing selectively with one of the sequences defined in a).

3. (Currently Amended) The combination product ~~as claimed in either of claims~~ of one of claim 1 or [[and]] 2, ~~characterized in that~~ wherein the agent used in antitumor chemotherapy is ~~selected from~~ a compound[[s]] belonging to the bleomycin family~~, in particular bleomycin~~.

4. (Currently Amended) The combination product ~~as claimed in either~~ of one of claim[[s]] 1 or [[and]] 2, ~~characterized in that~~ wherein the agent used in antitumor chemotherapy is ~~selected from~~ an antineoplastic agent[[s]] capable of methylating DNA~~, in particular from methylating agents, such as streptozotocin, procarbazine, dacarbazine and temozolomide~~.

5. (Currently Amended) The combination product ~~as claimed in either~~ of one of claim[[s]] 1 or [[and]] 2, ~~characterized in that~~ wherein the agent used in antitumor chemotherapy is ~~selected from~~ a chloroethylating agent~~s, in particular the chloroethylating agents:~~

~~1-(2-chloroethyl)-3-(2-hydroxyethyl)-1-nitrosourea,~~

~~1,3-bis(2-chloroethyl)-1-nitrosourea,~~

~~1-(2-chloroethyl)-3-(4-amino-2-methyl-5-pyrimidinyl)methyl1-nitrosourea,~~

~~1-(2-chloroethyl)-3-cyclohexyl-1-nitrosourea,~~

~~1-(2-chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea,~~

~~1-[N-(2-chloroethyl)-N-nitrosoureido]ethylphosphonic acid diethyl ester,~~

~~2-chloroethylmethylsulfonylmethanesulfonate.~~

6. (Currently Amended) The combination product ~~as claimed in either~~ of one of claim[[s]] 1 or [[and]] 2, ~~characterized in that~~ wherein the agent used in antitumor chemotherapy is selected from the group consisting of:

- ~~the various~~ a cytolytics ~~such as dacarbazine, hydroxycarbamide, asparaginase, mitoguazone and plicamycin~~,

- [[the]] a pro-apoptotic agents ~~selected from glucocorticoid derivatives, topoisomerase inhibitors such as topoisomerase 2 inhibitors, for example anthracyclines, epipodophyllotoxin, such as etoposide, topoisomerase 1 inhibitors, for example camptothecin derivatives~~,

- [[the]] an antimetabolites ~~such as antifolates, for example methotrexate, antipurines, for example 6-mercaptopurine, antipyrimidines, for example 5-fluorouracil~~, and

- ~~from the~~ an antimitotics ~~such as the vincaalkaloids, taxoids such as taxotere~~.

7. (Currently Amended) The combination product ~~as claimed in~~ [[one]] of claim[[s]] 1, ~~to 6, characterized in that~~ wherein the antisense oligonucleotide of the gene encoding MBD2 demethylase is ~~carried by~~ in a vector comprising a promoter which allows its effective expression in a eukaryotic cell.

8. (Currently Amended) The combination product ~~as claimed in one~~ of claim[[s]] 7, ~~characterized in that it~~ which further comprises a poly A transcription termination sequence.

9. (Currently Amended) The combination product ~~as claimed in~~ of claim 7, ~~characterized in that~~ wherein the vector ~~consists of~~ is a plasmid.

10. (Currently Amended) The combination product ~~as claimed in one of claims 1 to 8, characterized in that~~ of claim 1, wherein the antisense oligonucleotide is a double-stranded DNA.

11. (Currently Amended) The combination product ~~as claimed in one of claims 1 to~~ of claim 10, ~~characterized in that it also~~ which further comprises one or more elements which promote the transfer of the antisense oligonucleotide into the target cells.

12. (Currently Amended) The combination product ~~as claimed in one~~ of claim[[s 1 to]] 11, wherein ~~characterized in that~~ the antisense oligonucleotide is suitable for administration in vivo by electrotransfer~~, preferably using weak electric fields of between 1 and 600 V/cm~~.

13. (Currently Amended) The combination product ~~as claimed in one~~ of claim[[s 1 to]] 12, ~~characterized in that it also comprises~~ further comprising one or more pharmaceutically acceptable vehicle(s).

14. (Currently Amended) The combination product ~~as claimed in one~~ of claim[[s 1 to]] 13, ~~in particular~~ for simultaneous, separate or prolonged use ~~intended for~~ in the treatment of cancer.

15. (Currently Amended) The combination product ~~as claimed in one~~ of claim[[s 1 to]] 14, which ~~characterized in that it~~ is suitable for administration by intratumor injection.

16. (New) The combination product of claim 3, wherein said compound is bleomycin.

17. (New) The combination product claim 4, wherein said agent is selected from the group consisting of streptozotocin, procarbazine, dacarbazine and temozolomide.

18. (New) The combination product of claim 5, wherein said agent is selected from the group consisting of chloroethylating agent 1-(2-chloroethyl)-3-(2-hydroxyethyl)-1-nitrosourea,

1-(chloroethyl)-3-(2-hydroxyethl)-1-nitrosourea,

1,3-bis(2-chloroethyl)-1-nitrosourea,

1-(2-chloroethyl)-3-(4-amino-2-methyl-5-pyrimidinyl)methyl1-nitrosourea,

1-(2-chloroethyl)-3-cyclohexyl-l-nitrosourea,

1-(2-chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea,

1-[N-(2-chloroethyl)-N-nitrosoureido]ethylphosphonic acid diethyl ester, and

2-chloroethylmethylsulfonylmethanesulfonate.

19. (New) The combination product of claim 6, wherein said cytolytic agent is selected from the group consisting of dacarbazine, hydroxycarbamide, asparaginase, mitoguazone and plicamycin.

20. (New) The combination product of claim 6, wherein said pro-apoptotic agent is selected from the group consisting of glucocorticoid derivatives, topoisomerase 2 inhibitors and topoisomerase 1 inhibitors.

21. The combination product of claim 20, wherein said topoisomerase 2 inhibitor is an anthracycline epipodophyllotoxin.

22. The combination product of claim 21, wherein said antracycline epipodophyllotoxin is etoposide.

23. The combination product of claim 20, wherein said topoisomerase 1 inhibitor is a camptothecin derivative.

24. (New) The combination product of claim 6, wherein said antimetabolite agent is selected from antifolates, the group consisting of antipurines, and antipyrimidines.

25. (New) The combination product of claim 24, wherein said antifolate is methotrexate.

26. (New) The combination product of claim 24, wherein said antipurine is 6-mercaptopurine.

27. (New) The combination product of claim 24, wherein said antipyrimidine is 5-fluorouracil.

28. (New) The combination product of claim 6, wherein said antimitotic agent is selected from the group consisting of vincaalkaloids and taxoids.

29. (New) The combination product of claim 12, wherein the electro transfer is by weak electric fields of between 1 and 600 V/cm.